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11 South Meridian Street Indianapolis, Indiana 46204 (317) 236-1313 (317) 231-7433 Fax

# THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group:

1642

Confirmation No.:

5816

Application No.:

09/822,379

Invention:

Method of Treatment Using

Ligand-Immunogen Conjugates

Applicant:

Low et al.

Filed:

March 30, 2001

Attorney Docket:

3220-67883

Examiner:

Karen A. Canella

### Certificate Under 37 CFR 1.8(a)

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450

4/22/05

(Signature)

Rebecca L. Ball (Printed Name)

,

# **DECLARATION UNDER 37 C.F.R. § 1.131**

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

I, Philip S. Low, a citizen of the United States of America and resident of West Lafayette, Indiana, do declare and say that:

I am one of the named inventors on the captioned application for patent filed on March 30, 2001. The captioned application claims priority to U.S. Patent Application No. 60/193,944, filed on March 31, 2000 and to U.S. Patent Application No. 60/255,846, filed on December 15, 2000. I understand that the Examiner has rejected claims 43, 45, 46, and 50-52 of the application under 35 U.S.C. § 103(a) over Cowan (WO 01/32207) in combination with other references. Cowan was published on May 10, 2001 and has an International Filing Date of January 19, 2000.

The invention described and claimed in the captioned application was conceived and reduced to practice in this country prior to January 19, 2000.

The invention described and claimed in the captioned application comprises methods and compositions for enhancing an endogenous immune response-mediated elimination of a population of cancer cells comprising administering a composition comprising an immunogen conjugated to a folate receptor-binding ligand and a compound capable of stimulating an endogenous immune response wherein the compound does not bind to the conjugate.

Exhibit A is a copy of a figure that contains the same data as is shown in Fig. 1 of the patent application except that for Fig. 1 in the patent application the assay was extended for a longer period of time (i.e., to about 65 days post tumor implantation). The assay from which the data shown in Exhibit A was obtained was performed in my laboratory by Yingjuan Lu, the other named inventor on the captioned application. The date that the assay depicted in Exhibit A was completed is shown on Exhibit A, but that date has been redacted. The redacted date is earlier than January 19, 2000.

The data in the figure shown in Exhibit A was obtained from an assay in which mice were treated with folate-immunogen conjugates in combination with cytokines.

Accordingly, the claimed invention was conceived and reduced to practice in the United States prior to January 19, 2000.

I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, or any patent issuing thereon.

Dated:

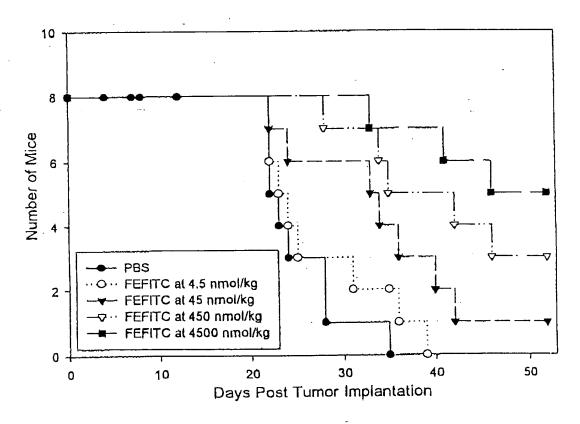
April 7, 2005

By:

Philip S. Low, Ph.D.

Tilp Foul

IND\$02 RVB 7205064



\*All mice were implanted with i.p. M109 tumors and treated with same doses of IL-2 at a schedule of qd x 5

EXHIBIT A to 1.131 Declaration

## **CURRICULUM VITAE**

Name:

Barton A. Kamen

Birth date/place:

September 30, 1948, New York, NY

Citizenship:

U.S. Citizen

Address:

3 Sleepy Hollow Lane

Princeton Junction, NJ 08550

Phone:

Home: (609) 936-0660

Work: (732) 235-8864 FAX (732) 235-8234

E-mail kamenba@umdnj.edu

**Marital Status:** 

Married 1976, Ruth Saletsky Kamen, Ph.D.

Daughter:

Libby, born 9/24/91

### **EDUCATION**

College:

Western Reserve University, Cleveland Ohio, 1970, B.A.

Graduate School: Case Western Reserve University, Cleveland, Ohio, 1976,

Ph.D.

Case Western Reserve University, Cleveland, Ohio, 1976,

M.D.

### **HONORS**

Herbert S. Steuer Award for Research in Department of Anatomy,

1976

Alpha Omega Alpha, 1976

Cooley's Anemia Foundation Award (Connecticut), 1978 Damon Runyon/Walter Winchell Cancer Fellowship, 1979-80

Leukemia Society of America Scholar, 1983-87

Burroughs Wellcome Clinical Pharmacology Award, 1987-1992 Founder's Award, Southern Society Pediatric Research, 1989

Student Clinical Teaching Excellence Award, 1991 American Society of Clinical Investigation, 1992

Carl B. and Florence E. King Distinguished Chair, 1993-

American Cancer Society Clinical Research Professorship, 1994-

## **BOARD CERTIFICATION/MEMBERSHIPS**

American Board of Pediatrics

American Board of Pediatrics (Sub-Board of Hematology/Oncology)

American Association for Cancer Research

Society for Pediatric Research

American Federation of Clinical Research

American Society of Clinical Oncology

Southern Society for Pediatric Research

American Society of Clinical Investigation

American Society Pharmacology and Experimental Therapeutics

**American Pediatric Society** 

# PROFESSIONAL TRAINING/POSITIONS

1976-77	PL1, Yale University School of Medicine (Pediatric Resident)
1977-78	PL2, Yale University School of Medicine (Pediatric Resident)
1978-79	Clinical Fellow Pediatrics, Fellow in Medical Oncology
1979-80	Damon Runyon/Walter Winchell Cancer Fellow,
	Department of Pharmacology and Pediatrics, Yale University
1980-83	Assistant Professor of Pediatrics and Pharmacology, Midwest
	Children's Cancer Center, Medical College of Wisconsin,
	Milwaukee Children's Hospital, Milwaukee, Wisconsin
1982-83	Member, Graduate School Faculty
1983-84	Associate Professor of Pediatrics and Pharmacology, Midwest
	Children's Cancer Center, Medical College of Wisconsin,
	Milwaukee Children's Hospital, Milwaukee, Wisconsin
1984-89	Associate Professor of Pediatrics and Pharmacology, The
	University of Texas Southwestern Medical School, Dallas, Texas.
1990-99	Professor of Pediatrics and Pharmacology, The University of Texas
	Southwestern Medical Center, Dallas, Texas.
1993-99	Carl B. and Florence E. King Foundation Distinguished Chair of
	Pediatric Oncology Research
1994-	American Cancer Society Clinical Research Professor
1999-	Professor of Pediatrics and Pharmacology, Director of Pediatric
	Hematology-Oncology and Associate Director of the Cancer
	Institute of New Jersey, University of Medicine and Dentistry of
	New Jersey Robert Wood Johnson Medical School
1999-	Member Graduate Program in Cellular and Molecular
1000	Pharmacology, Robert Wood Johnson Medical School
	i Haimacology, Nobelt Wood Comison Medical Concor

# COMMITTEES\EDITORIAL RESPONSIBILITIES

1981-	Pediatric Oncology Group (POG) New Agent and Pharmacology Committee
1981-89	Pediatric Oncology Group Lymphoid Disease Committee
1981-84	Chairman Carcinogen Committee The Medical College of Wisconsin
1982-84	Member, Graduate Faculty The Medical College of Wisconsin
1982-83	Vice Chairman, New Agent and Pharmacology Committee Head of New Agent Section, Pediatric Oncology Group
1983-86	Executive Committee of Hematology/Oncology Discipline Committee Pediatric Oncology Group
1983-87	Associate Editor, Methotrexate Update
1983-88	Chairman, New Agent and Pharmacology Committee, Pediatric Oncology Group
1983-	Advisory Board, Who's Who in America (for Cancer Specialists)
1984-	Biohazards Committee
1984-96	Pharmacy & Therapeutics Committee, Children's Medical Center & Parkland Memorial Hospital
1984-86	Transfusion Committee, Children's Medical Center
1985-	Head, Pharmacy & Therapeutics, Children's Medical Center
1986-	Director, Intern Selection Committee, Department of Pediatrics, UTSouthwestern Medical Center
1986-	Institutional Review Board for local American Cancer Society
1987-	Editorial Board, Cancer Therapy and Control
1988-	Member Graduate Faculty, UT Southwestern Graduate School of Biomedical Sciences
1989-	Secretary Medical Staff, Children's Medical Center
1990-93	Scientific Advisory Board - Chemotherapy and Hematology, American Cancer Society (National)
1991-	Advisory Board PDQ (NCI data base for cancer treatment)
1992-93	Program Planning Committee for the American Society Clinical Oncology for Pediatrics and Pharmacology
1992-	Editorial Board, Cancer Chemotherapy and Pharmacology
1993-94	Program Committee, AACR
1993-	Associate Editor, Cancer Research Therapy and Control
1993-94	Chairperson/speaker/program committee, AACR symposium,
1993-	Editorial Board, Pharmacotherapy
1993-	Review Committee Medical Student Basic Science Education
1993-	Search Committee, Chair Dept. of Cell Biology and Neuroscience
1993-	Board of Directors AW Harris Faculty club

1993-	Elected member-at-large of Medical Service, Research and
	Development plan at UTSouthwestern
1994-	Editorial Board, Clinical Cancer Research
1995-	Education Committee, AACR meeting 1996
1995-1999	Admissions Committee, MSTP (MD/PhD) program,
	UTSouthwestern
1995-1997	Search Committee Director of Simmons Cancer Center
1996-1999	Editorial Board, Journal of Clinical Oncology
1996-	Board of Directors: Clayton Dabney Foundation for Kids with
	Cancer
1996-	Advisory Group on Research Evaluation and Targeting: American
	Cancer Society
1996-	American Society Clinical Oncology Subcommittee Phase I Clinical
	Trials
1996-	Interim Director, Clinical Research Office, Simmons Cancer Center
1997-	Editorial Board, Pediatric Hematology and Oncology
1997-	Editorial Board, Cancer Therapeutics
1998-	Program committee, AACR Phase I clinical trials
	1998- Advisory Committee Burroughs Wellcome Fund Clinical
	Scientist Awards
1998-	Publication Relations and Communications Committee, AACR
1998-	Scientific Editor, Pharmacotherapy
1998-	Associate Director Simmons Cancer Center (director of exptl
therapeutics	
1998-	Research Program Evaluation Advisory Group, American Cancer
Society	
1999-	Leukemia and Lymphoma Society of America Translational
	Research Grant Review Committee
2000-	Program Committee AACR and AACR-EORTC joint meeting
	AACR program committee and session chair: clinical
	pharmacology, modality based, invited speaker at mini-symposium.
2001-	Chair, American Cancer Society Nominate Peer Reviewers
0004	Advisory Group
2001-	Editorial Academy, International Journal of Oncology
2002-	AACR co-chair of discussion session of gender, age and race in
	clinical trials, pediatric meet the expert and faculty member of
0000	scientist-survivor program (also for 2001 meeting)
2002-	Editorial Board of CURE
2002-	Selection Committee AACR fellowships
2003-	Editorial board, Cancer Therapy
2003	AACR forum chair/speaker - Metronomics
2003	AACR faculty/meeting chair scientist-survivor program
2003	AACR Pediatric Oncology Task Force  Member Institutional Review Board
2003	
2003 2004	Committee of Review (faculty review)  AACR co-Chairman, Pediatric Symposium
200 <del>4</del>	ANOIN 60-Chairman, i Guiathe Symposium

2004	Editor-in-Chief Journal of Pediatric Hematology-Oncology
2004	Editorial Board Current Pediatric Reviews
2004	Editorial Board Journal of Chemotherapy
2004	New Jersey Commission on Cancer Research (NJCCR)(one of 11
	member board)

# Some Examples of Additional Current and Past "Academic" Activities:

**PhD Committee(s):** University of Buffalo and Roswell Park Memorial Institute **Reviewer for:** Cancer Research, Clinical Cancer Research, Cancer Chemotherapy Pharmacology, Biochemical Pharmacology, Journal Biological Chemistry, Journal Clinical Investigation, Journal Clinical Oncology, Pediatric Hematology/Oncology, Journal National Cancer Institute, Journal Medical and Pediatric Oncology, Pharmacotherapy, New England Journal of Medicine and others.

Ad Hoc Site Visit Cancer and Pharmacology Programs for NIH/NCI and Experimental Therapeutics study section. Special Reviewer for Scientific Advisory Board of St Judes Children's Research Hospital. Reviewer for NIH contracts/ grants for Phase I/II drugs and the RAID program for new drug development. Reviewer for American Cancer Society, Special Grants. Board of Trustees, Dallas Chapter Leukemia Society of America. Advisory Board, Komen Foundation (breast cancer research). Board member and President elect, Dallas County Chapter American Cancer Society.

Teaching Responsibilities: Texas: In addition to in patient attending 8-10 weeks/year (pediatric oncology), one day/week was spent in clinic with "routine hematology/oncology and ½ day/week seeing adults in consultation for phase I/II therapy. There was also weekly tumor board. I also lecture third year medical students 6 times/yr about pediatric oncology, teach Anti-Cancer Pharmacology to second year medical students and the advanced pharmacology course for graduate students (mechanisms of drug action) and lecture first year medical students about purine and pyrimidine metabolism. New Jersey: Lecture graduate students and medical students about Pediatric Oncology and Pharmacology. Attending physician approximately 8 weeks/year and weekly clininc. First year biochemistry lecture: clinical correlates of purine and pyrimidine metabolism. Participate in Princeton University undergraduate program for pred-medical students.

Past support (not inclusive of industry, local philanthropy and consulting)

American Cancer Society, DHP68 (originally CH228), A Study of Mechanisms of Resistance and Toxicity to Anti-Folates. **B Kamen PI**,  $\cong$ 30% effort. **1981-1996**  $\cong$  \$100,000/yr (terminated by age...rules of ACS).

NIH CA34840, Interaction of Organ Irradiation and Cancer Drug Pharmacology. **B Kamen, John Holcenberg Co-Pl** 30%. **4/1/82-3/30/87**. Total direct cost \$541,580.

NIH, CA52625-03, Folate receptor as a marker and target in cancer therapy. **B Kamen, PI**, 30% effort. **7/90-6/93**. Total direct costs \$220,000,

NIH, GM43169-01, Molecular cytology of the folate receptor. **Co-PI RGW Anderson, B Kamen**, 5% effort. **8/90-7/95**. Total direct cost \$674,000.

NIH, CA33625, Pediatric Oncology Group Activities. G Buchanan Pl. **B Kamen** 5%. 1/01/93-12/31/93. Total direct \$189,663.

NIH, CA09640-04, Pediatric Hematology and Oncology research Training Grant. G Buchanan Pl. **B Kamen 5%. 03/01/90-02/28/94**, Direct (3/93-2/94) \$131,962.

NIH, UO1 CA60431, Pharmacologic Studies of Acute Lymphoblastic Leukemia. **B Kamen PI**, 10% effort, **9/1/93-8/31/97**, Total direct cost \$601,680.

Small grants for therapeutic trials (NIH): A case for aminopterin in the treatment of leukemia. **B Kamen PI,** 5% effort, **6/96-5/31/98**. Total direct costs \$101,184.

March of Dimes Birth Defects Foundation: Role of folic acid and homocysteine as risk factors for neural tube defects. R. Finnell PI. **B. Kamen** 10%, 6/98-5/2000, total direct  $\cong$  125,000.

NIH, CA Modulation of drug resistance in CNS tumors. D. Kokkinakis, Pl. B Kamen, 5 % time. 9/98-8/01. Total direct cost \$345,006

Parker Hughes Trust: A case for aminopterin in the treatment of leukemia. **B. Kamen PI 1/97-12/97**. \$50,000.

Scholar Leukemia Society of America, **B. Kamen PI** salary support **1983-1987**, \$30,000/year.

Burroughs Wellcome Clinical Pharmacology Award, **B. Kamen PI** salary support **1987-1992**, \$50,000/year

Carl B. and Florence E. King Distinguished Chair in Pediatric Oncology Research, **B. Kamen Pl 1993-1999**, ≅ 50,000/year.

Texas Dept. of Health. Folate Seroprevalence of Texas Women. **B. Kamen, Pl 6/99-01**. Total Direct  $\cong$  \$45,000.

HD35396 Folate receptor knockouts, arsenate and birth defects. R. Finnell, PI, 4/97-3/02. B. Kamen, 5% time. Total direct cost \$789,580.

01-1080-CCR-S-O New Jersey Commission for Cancer Research. *Cerebral folate transport:role in Cancer treatment.* J. Wollack PI, **B. Kamen 5% time**. 6/01-5/03. Total \$97,900, first year \$50,000.

FD-R-001458-NIH, Aminopterin in Adults and Children with Acute Leukemia. **B.** Kamen, PI 9/30/00-9/29/03. Total direct costs \$116,500.

### Current:

American Cancer Society Clinical Research Professorship (CRP-6) **B. Kamen, PI** Salary Support **1994-** \$60,000/ year.

ACS Supplement to above: \$10,000/yr for supplies or partial student stipend.

FD-R-001832, A Pilot Study of Aminopterin for Patients with Acute Lymphoblastic Leukemia. **B. Kamen, PI 9/30/00-9/29/05**. Total direct cost \$440,000.

New Jersey Commission on Cancer Research: Pilot trial of dextromethorphan in cancer related fatigue. S Goodin PI, **B. Kamen 5% time**. \$35,000 2003-2004

Damon-Runyon Walter Winchell/Eli Lilly Translational Award (mentored research) Pl P. Cole, Mentor B. Kamen. 7/03-6/08. total award \$995,000.

NIH R43 CA109801-01: Novel Oral Trojan-Horse Agents For Osteolytic Cancer Goldstein, Alex, S. PI, B. Kamen, 5% time. 9/04-8/06. Total award \$599,998. First year \$299,999.

## **PATENTS:**

Kamen, B.A. and Zebala, J.A. Therapeutic compositions and methods employing aminopterin. U.S. Patent Pending.

Kamen, B. A. Treatment of antifolate neurotoxicity. U.S. Patent Pending.

### **PUBLICATIONS:**

Rothenberg SP, Frances G, and Kamen BA: Antibodies against folic acid-- I. *In vitro* biophysical effect. J Lab Clin Med 74:622-671, 1969.

DaCosta M, Rothenberg SP, and Kamen BA: DNA synthesis in chronic granulocytic leukemic cells containing unsaturated foliate binder. Blood 39, 621-627, 1972.

Kamen BA, and Caston JD: Direct radiochemical assay for serum folate: competition between <sup>3</sup>H-folic acid and 5-methyltetrahydrofolic acid for a folate binder. J Lab Clin Med 83:164-174, 1974.

Kamen BA and Caston JD: Identification of a folate binder in hog kidney. J Biol Chem 250:2203-2205, 1975.

Kamen BA, Takach PL, Vatev R, and Caston JD: A rapid, radiochemical assay for methotrexate. Anal Biochem 70:54-63, 1976.

Kamen BA and Caston JD: Purification of a folate binding factor in normal human umbilical cord serum. Proc Nat Acad Sci 72:4261-4264, 1975.

Kamen BA and Caston JD: Comments of radiochemical folate assay. Clin Chem 22:1409-1410, 1976.

Kamen BA, Summer CP, and Pearson HA: Exchange transfusion as a treatment for hyperleukocytosis, anemia and metabolic abnormalities in a patient with leukemia. J Pediatr 96:1043-1044, 1980.

Gross S, Kamen BA, Fanaroff A, and Caston JD: Folate compartmentation during developmental maturation. J Pediatr 96:842-844, 1980.

Kamen BA, Cashmore AR, Hsieh P, Dreyer RN, Moroson BA and Bertino JR: Transport of methotrexate in a sensitive and resistant cell line: effect of <sup>3</sup>H-methotrexate impurities. J Biol Chem 255:3254-3257, 1980.

Kamen BA, Nylen PA, Camitta BM, and Bertino JR: Methotrexate accumulation in cells as a possible mechanism of chronic toxicity to the drug. Br J Haematol 49:355, 1981.

Krakower GA, Nylen PA, and Kamen BA: Identification and separation of subpicomole amounts of methotrexate polyglutamates in animal and human biopsy material. Anal Biochem 122:412-416, 1982.

Ohnoshi T, Ohnuma T, Takahashi I, Scanlon K, Kamen BA, Holland JF: Establishment of methotrexate-resistant human acute lymphoblastic leukemia cells in culture and effects of folate antagonists. Cancer Res 42:1655-1660, 1982.

Vietti TJ, Steuber CP, Kim TH, Holcenberg J, Kamen B, Murray E, and Capiello V: Mitoxantrone in children with advanced malignant disease: a phase I study. In, New Anticancer Drugs. Raven Press, New York, NY, 1982.

Kamen BA, Holcenberg JS, Siegel SA: Treatment of CNS leukemia with AZQ. Cancer Treatment Report 66:2105-2106, 1982.

Kamen BA, Whyte-Bauer W and Bertino JR: A mechanism of resistance to Methotrexate. NADPH but not NADH stimulation of methotrexate binding to dihydrofolate reductase. Biochemical Pharmacology 32:1837-1841, 1983.

Harb JM, Werlin SL, Camitta BM, Oechler H, Kamen BA, Blank EL: Hepatic ultrastructure in leukemic children treated with methotrexate and 6-mercaptopurine. Amer J Pediatr Hematol/Oncol 5:323-331, 1983.

Krakower GA and Kamen BA: Comments on pharmacokinetics of erythrocyte and plasma MTX. Cancer Chemother and Pharmacol 10:230, 1983.

Krakower GR, Kamen BA: <u>In situ</u> methotrexate polyglutamate formation in rat tissues. J Pharm Exp Ther 227:633, 1983.

Kamen BA, Eibl B, Cashmore A, Bertino JR: Uptake and efficacy of trimetrexate (TMQ, 2,4, diamino-5 methyl-6-[3,4,5-trimethoxynilinomethyl quinazoline) a non-classical antifolate in MTX resistant leukemia cells <u>in vitro</u>. Biochem Pharmacol 33:1697-1699, 1984.

Kamen BA, Holcenberg JS, Turo K, Whitehead VM: Methotrexate and folate content of erythrocytes in patients receiving oral vs intramuscular therapy with methotrexate. J Pediatr 104:130-133, 1984.

Krakower GR, Kamen BA: The reticulocytic rat: A model for the <u>in situ</u> analysis of methotrexate polyglutamate dynamics. J Pharm Exp Ther 231:43-47, 1984.

Kun LE, Camitta BM, Mulhern RK, Lauer SJ, Kline RW, Casper JT, Kamen BA, Kaplan BM, Barber SW: Treatment of meningeal relapse in childhood acute lymphoblastic leukemia: I. Results of craniospinal irradiation. J Clin Oncol 2:359-364, 1984.

Kamen BA, Holcenberg JS, Moulder JE, Ring BJ, Adams SE, Fish BL: Methotrexate accumulation in rat brain is independent of irradiation and drug schedule. Cancer Res, 44:5092-5094, 1984.

Ohnuma T, Lo RJ, Scanlon K, Kamen BA, Ohnoshi T, Wolman SR, Holland JF: Evolution of methotrexate resistance of human acute lymphoblastic leukemia cells in vitro. Cancer Res 45:1815-1822, 1985.

Civin CI, Krischer J, Land VJ, Nitschke R, Kamen B, Vats T: Pediatric Oncology Group Phase II trial of AMSA in children with solid tumors. Cancer Treat Report 69:335-336, 1985.

Ungerleider RS, Pratt CB, Vietti TJ, Holcenberg JS, Kamen BA, Glaubiger DL, Cohen LF: Phase I trial of mitoxantrone in children. Cancer Treat Rep 69:403-407, 1985.

Kamen BA, Nylen PA, Whitehead VM, Abelson HT, Dolnick BJ, Peterson DW: Lack of dihydrofolate reductase in human tumor and leukemia cells <u>in vivo</u>. Cancer Drug Delivery 2:133-138, 1985.

Kamen BA, Gunther N, Sowinski N, Rizzo J, Marsik F: Analysis of antibiotic stability in a parenteral nutrition solution. J Infec Dis 4:387-389, 1985.

Zimm S, Ettinger L, Holcenberg J, Kamen BA, Vietti TJ, Belasco J, Shutta N, Balis F, Lavi LL, Collins JM, Poplack DG: Phase I and clinical pharmacologic study of mercaptopurine administered as a prolonged intravenous infusion. Cancer Res 45:1869-1873, 1985.

Kamen BA, Gunther N: Daily unit dosing of antibiotics with a programmable, automated syringe pump. Am J Hosp Pharm 42:2715-2716, 1985.

Winick NJ, Krakower G, Kamen BA: Metabolism of MTX to polyglutamyl derivatives and relationship to folate pools <u>in vivo</u>. Proceedings of Second Workshop on Folyl and Anti-Folyl Polyglutamates. Ed. Goldman ID, Praeger Publ. N.Y. pp 297-307, 1985.

Kamen BA and Caston JD: Properties of a folate binding protein (FBP) isolated from porcine kidney. Biochemical Pharmacol 35:2323-2329, 1986.

Kamen BA, Capdevilla A: Receptor-mediated folate accumulation is regulated by the cellular folate content. Proc Natl Acad Sci USA,83:5983-5987,1986.

Kamen BA, Casper J, Lauer S, Camitta BM, Holcenberg J: Treatment of refractory acute lymphoblastic leukemia with VM-26 and cytosine arabinoside. Cancer Treat Rep 70:935-936, 1986.

Kremer JN, Galivan J, Streckfuss A, Kamen BA: Methotrexate metabolism in blood and liver in rheumatoid arthritis: association with hepatic folate deficiency and formation of polyglutamates. Arth Rheum 29:832-835, 1986.

Moulder JE, Holcenberg JS, Kamen BA, Cheng M, Fish BL: Renal irradiation and the pharmacology and toxicity of methotrexate and cisplatinum. Int J Radiat Oncol Biol Phys 12:1415-1418, 1986.

Pratt CB, Kamen BA, Winick N, Sartain P, Champion JE, Ragab AH, Goren MP: Phase I study of iproplatin in pediatric patients: A Pediatric Oncology Group Study. Cancer Treat Rep 71:87-88, 1987.

Holcenberg JS, Tutsch KD, Earhart RH, Ungerleider RS, Kamen BA, Pratt CB, Gribble TJ, Glaubiger DL: Phase I study of ICRF 187 in pediatric cancer patients and comparison of its pharmacokinetics in children and adults. Cancer Treat Rep 70:703-709, 1986.

Kinney TR, Kirscher JP, Starling KA, Kamen BA: Pediatric Oncology Group Phase II trial of MGBG in children with leukemia and lymphoma. Cancer Treat Rep 70:1041-1042, 1986.

Goren MP, Forastiere AA, Wright RK, Horowitz MC, Dodge RK, Kamen BA, Pratt CB: Carboplatin (CBDCA), Iproplatin (CHIP) and high dose cisplatin in hypertonic salt evaluated for tubular nephrotoxicity. Cancer Chemother Pharmacol 19:57-60, 1987.

Winick N, Kamen B, Lester C, Balis F, Poplack D, Holcenberg J: Folate and methotrexate polyglutamate tissue levels in monkeys following low dose methotrexate. Cancer Drug Delivery 4:25-31, 1987.

Holcenberg JS, Moulder JE, Kamen BA, Krailo MD, Fish BL, Ring BJ, Adams S: Chronic effects of fractionated renal irradiation on the pharmacokinetics of intravenous methotrexate. Int J Radiat Oncol Biol Phys 13:759-764, 1987.

Winick NJ, Kamen BA, Streckfuss A, Craig J, McGuirt F, Capizzi RL, Sklar F, Coln D: Methotrexate (MTX) concentration in tumors following low dose MTX. Cancer Chemotherapy & Pharmacology 20:78-80, 1987.

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Kamen BA, Winick NJ: High dose methotrexate: insecure rationale? Biochem Pharmacol 37:2713-2715, 1988.

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Lacey SW, Sanders JM, Rothberg KG, Anderson RGW, Kamen BA: Complementary DNA for the folate binding protein correctly predicts anchoring to the membrane by glycosyl-phosphatidylinositol. J Clin Invest 84:715-720, 1989.

Furman WL, Pratt CB, Rivera GK, Kirscher JP, Kamen BA, Vietti TK: Mortality in pediatric phase I clinical trials. J Nat'l Canc Inst 81:1193-1194, 1989.

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Arkin H, Ohnuma T, Kamen B, Holland J: Multidrug resistance in human leukemic cell line selected for resistance to trimetrexate. Cancer Res 49:6556-6561, 1989.

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Camitta B, Leventhal B, Lauer S, Shuster JJ, Adair S, Casper J, Civin C, Graham M, Mahoney D, Kiefer G, Kamen B: Intermediate dose intravenous methotrexate and 6-mercaptopurine therapy for non-T, non-B acute lymphocytic leukemia of childhood: A Pediatric Oncology Group pilot study. J Clin Oncol 7:1539-1544, 1989.

Gratton MA, Salvi RJ, Kamen BA, and Saunders SS: Interaction of cisplatin and noise on the peripheral auditory system. Hearing Res 50:211-224, 1990.

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Weitman S and Kamen BA: Methotrexate resistance; role of pyridine co-factors. Cancer Therapy and Control 1:251-257, 1990.

Kamen BA: Trimetrexate therapy for *Pneumocystis carinii*. Ped Infec Dis 9:215, 1990.

Pappo A, Vietti T, Whitehead VM, Ragab A, and Kamen B: A phase II trial of trimetrexate in the treatment of relapsed childhood leukemia. J Natl Cancer Inst 82:1641-1642, 1990.

Winick N, Bowman WP, and Kamen BA: Prolonged intensive oral methotrexate does not induce its own malabsorption. Cancer Therapy and Control 1:245-250, 1990.

Gratton MA and Kamen BA: Potentiation of Cisplatin Ototoxicity by Noise. J Clin Oncology 8:2091-2092, 1990.

Rothberg KG, Ying Y-S, Kamen BA, and Anderson RGW: Cholesterol controls the clustering of the glycophospholipid-anchored membrane receptor for 5-methyltetrahydrofolate. J Cell Biology 111:2931-2938, 1990.

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## **ABSTRACTS**

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